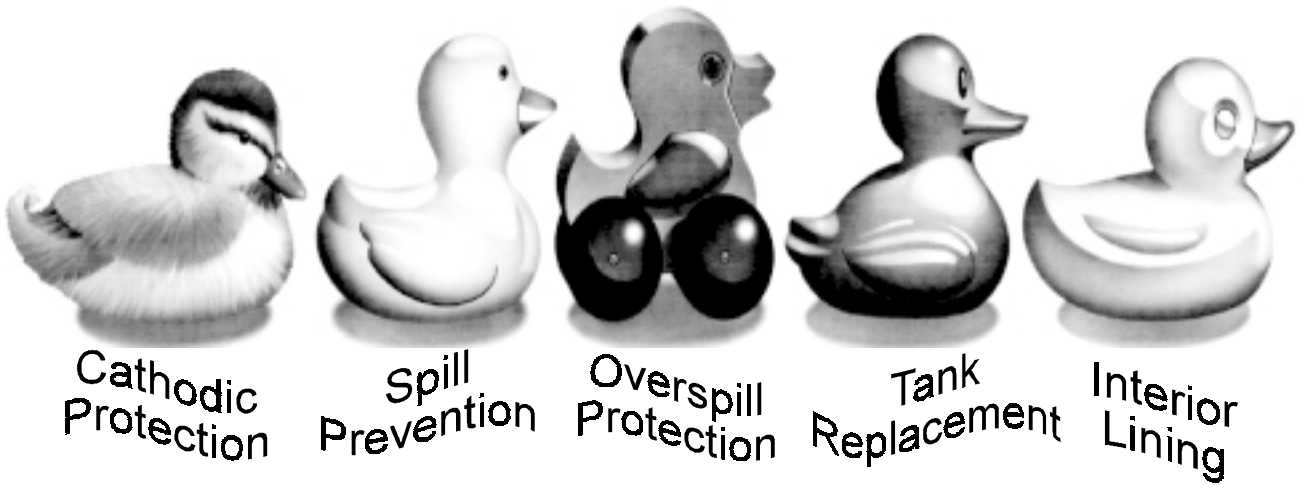


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New Installer Certification Regulations

In response to comments the Environment Department received from tank owners and tank installers, the Underground Storage Tank Bureau has revised the tank installer certification regulations. These regulations were approved by the Environmental Improvement Board and became effective November 19, 1995.

The regulations create two levels of installer certification. Level A is for installers who perform tank and line installation, repairs and modifications. A written and an on-site exam are required for certifica-

tion. This is the new designation given to all tank installers certified under the previous regulations.

Level B is designated for individuals certified to replace and install leak detectors, overfill devices, overspill containment devices, and drop tubes. These individuals are not certified to do any other repairs or installations. Only the written exam is required for certification.

Other regulation changes include raising the on-site examination fee to \$300, deleting the fees for approval of continuing education, and adding a 30-day notification requirement for the on-site examination.

Standardized Report Forms show promise

by Ray Montes, Project Manager, USTB, Santa Fe

"I may be the last speaker at this conference but probably not the best," District 1 Project Manager Calvin Martin said during his presentation on standardized reporting at the

UST Conference at the Albuquerque Convention Center. Kal is known for his cheezy sense of humor, which is greatly appreciated among Bureau staff.

So began the discussion on the much awaited report forms that the UST Bureau feels will improve the quality of reports and be a cost-saver for the Corrective Action Fund. Kal mentioned that by using the forms, future reports submitted to the Bureau will be more consistent and easier to read. Environmental consultants should also find the standardized forms helpful in writing their reports. More importantly, standardized reports will make it easier for Bureau staff, consultants, and tank owners to make sure that all the information required by the UST regs is included in each report submitted to the Bureau.

Standardized forms will be required in 1996 when submitting the 7-Day Report, On-Site Investigation Report, Hydrogeologic Investigation Report, Reclamation Proposal, and Quarterly Monitoring Reports to the UST Bureau. There is a form specific to each report.

To show skeptics how creative Bureau staff are, committee members Kal Martin, T.C. Shapard, Rita Alexander, and Dana Bahar chose appropriate names for each standardized form. The name of each form corresponds to the section in the USTR where the requirements for the particular report can be found. For example, Form 1204 will be the name of the form for the 7-Day Report, which can be found under Section 1204 of the UST regulations.

In developing suitable forms for New Mexico, the committee members studied existing report forms from other states (e.g., Texas, Arizona, Oklahoma, Utah). The forms presented at the UST Conference were still in draft form but are

now finalized. You can request the final forms on Macintosh or IBM-formatted disks (and, hopefully, via the Internet or the World Wide Web). See the "Kal Sez" box for the the distribution announcement and further instructions.

Kal Sez:

Standardized Report Forms will be available at either the UST Bureau office located at the Harold Runnels Building, 1190 St. Francis Drive, Santa Fe, or at the District I UST Bureau office at 4131 Montgomery Blvd. NE, Albuquerque. Please contact Josephine Romero at the UST Bureau District I office at (505) 841-9460 or by email at Josephine_Romero@edhub.state.nm.us to request copies. Report forms are also available on disk for IBM compatible PCs. Please supply the a blank disk. Standardized Report Forms will be effective on March 1, 1996.

Is the Department Applying the Regulations Evenly?

Yes, but that does not mean taking the same approach to cleanup at all sites

by Anna Richards, UST Bureau Chief, and Gregg Crandall, Program Manager, District I

The Environment Department aims for appropriate compliance with UST corrective action regulations at all sites. There is flexibility in the regulations, but also required action.

Limited corrective action funds have pushed the Bureau to find creative ways to use the flexibility in the regulations to allow appropriate levels of cleanup at each site and stretch funds as far as possible.

Here are the answers to some recently asked questions.

Q: Does the Department require the same level of effort of its contractors at state-lead sites that it holds tank owners and their contractors to at responsible-party-lead sites?

Yes, and when lower levels of effort provide protection of health and the environment equal to or greater than that provided by a strict adherence to sections of Part XII of the UST regulations, this is conveyed to the tank owner and is considered in choosing a remediation strategy, whether the site is state-lead or RP-lead.

Getting contracts completed and signed by the consultant and the state, especially in the early days of the state-lead program, has sometimes taken months. RPs who experience similar unavoidable delays are granted extensions upon request.

Q: Will the Department send NFA (no further action required) letters or close state-lead sites before soil action levels or groundwater quality standards have been met?

No.

Q: When does the Department allow “watch and wait” or “monitoring only” at leak sites?

The regulations allow this approach under certain conditions. Under USTR §1212.D.2, the deadline for containment of contaminated groundwater may be extended or waived if the contaminant concentrations are less than 10 times the New Mexico Water Quality Control Commission standards, the contamination will not affect present or foreseeable future use of groundwater or surface water, the contamination is contained on-site naturally, no free product is present, AND the

groundwater is sampled quarterly for two years to demonstrate that contamination is decreasing naturally so that NMWQCC standards are met within 20 years.

Q: When does the Department allow remediation equipment to be removed from a cleanup site?

Only after achieving “no further action required” status, unless special circumstances exist. For example, if contamination has been reduced below cleanup levels or standards, and pre-closure monitoring is beginning, a system may be removed if the property is going to be developed. The main reason equipment is rarely removed early is that if active remediation is required in the future, the Fund may not reimburse the costs of installing a second remediation system.

Q: How should consultants, responsible parties, and concerned citizens make known their objections to the Bureau’s direction of corrective action at a site?

The Department encourages the regulated public to make known their concerns about the approved scope of work and level of effort at a site. Project manager caseloads are high, and input from the regulated community and their consultants assists the Bureau in determining the appropriate response at a site. Protecting and restoring water supply resources is the goal of the remedial action effort. The Department will respond to calls or letters to the Project Manager, Program Manager, District I Manager or the Bureau Chief expressing concerns or requesting a meeting to discuss concerns of unfair application of the law. Competitive contractor selection procedures and group decision-making associated with those procedures protect any contractor who might express a concern from discriminatory action on the part of any Department employee.

All responsible parties are required to give public notice of each reclamation proposal being considered by publishing notice in the newspaper, posting notice on-site and sending notice to neighbors. This is true for both state-lead and RP-lead sites. These legal notices are required of any reclamation approach and offer the public an opportunity to learn more, ask questions, and make comments.

you stir the water. He also said it was important to understand what effect the lithology might have on the process.

He said a crucial factor one must know in determining the behavior of these systems is the mass transfer rate. To have an accurate understanding of the process, and to predict whether or how sparging will work, requires a measurement of the mass transfer rate which can't be measured in the field at present. Thus, he said, pilot tests for sparge-and-vent were something of a black art.

"Insurance" for regulators and the taxpayer

When I hear terms and phrases like "black art," "chaos," "results of pilot testing will overestimate performance," I wonder how I'm to know whether a system will work and

whether spending taxpayer dollars is warranted? Until these systems are understood more completely, the answer has been to employ innovative consulting contracts, such as "pay-for-performance" or "fixed-price" contracts, as "insurance."

This allows the practitioner the flexibility necessary to achieve success and protect the taxpayers from having their dollars spent on what might turn out to be an expensive research and development project. The Bureau is watching the performance of these systems closely and compiling and disseminating the results. Personal reservations aside, I appreciated the willingness of the consulting community to provide a snapshot in time on the state of the "black art" of sparging.

Wrapping up the UST conference: Thanks to all

by John French

We'd like to take a moment to say thank you to all participants in the 1995 UST Conference & Trade Show. While many of our *Tank Notes* readers were able to attend, those of you who couldn't may participate through the articles presented in this and the next issue. The UST Bureau has sent letters of appreciation to speakers, panelists, refreshment sponsors, and other supporters of the conference activities. We also want to thank all those who attended, company representatives, and convention support staff who made this conference a success and a pleasure.

Bureau managers and staff received many compliments for a job well done. The Bureau was privileged to be able to serve the public. It was gratifying to present certificates to 86 company staff for 12 hours continuing education units towards their certification as scientists for corrective action, or for certified installers of UST systems. We hope all enjoy the reports from the conference activities.

Speaking of conferences.....

The 1996 New Mexico Conference on the Environment is being held March 12-14 at the Albuquerque Convention Center. This year's theme is "Setting New Mexico's Environmental Agenda for the Future." Participants will produce recommendations to the Governor and legislative leaders regarding an agenda to be set for the preservation of New Mexico's environment and the health of its citizens.

The last day will focus on training and certification in underground storage tank management, environmental site assessments, pollution prevention, waste minimization, and hazardous waste operations and emergency response.

Exhibitors will have space in the convention exhibit hall to show the latest in environmental assessment and remediation technology.

Call Bill Williams at 827-2855 for information and registration materials.

We hope to see you there!



Those chaotic sparge-and-vent remediation systems

The “black art” of sparging, or, how to make a regulator nervous

by Jane Cramer, Geologist II, USTB District I

On Wednesday morning at the UST conference, UNM engineering professor Bruce Thomson moderated a panel that he billed as a free-for-all. A panel of five practitioners of the remediation technology most commonly known as sparge-and-vent, or sparging, and one “referee” academician/theoretician assembled to present views, field questions, and provide attendees with the state-of-the-art, both in field applications and in research laboratories.

Brad Billings of Billings & Associates, Mary Dahl of Camp Dresser & McKee, Bill Brown of Dames and Moore, Dacre Bush of Groundwater Technology, Inc., and Kyle Rutherford of the Civil Engineering Department at Arizona State University made up the panel.

What is sparging?

Air sparging is an in-situ remediation technology that reduces concentrations of volatile constituents, especially those adsorbed to soils or dissolved in groundwater. It also contributes to bioremediation through addition of oxygen. The technology involves injection, usually through wells, of contaminant-free air into the subsurface saturated zone, enabling a transfer of hydrocarbons from a dissolved state to a vapor phase. These vapors are then vented or extracted through the unsaturated zone. The extraction system, also usually consisting of wells, creates a negative pressure in the vadose zone controlling vapor migration.

Advantages of sparge-and-vent systems are:

- readily available equipment and easy installation;
- implementation with minimal disturbance to site operations;
- short treatment times, maybe as little as one year;
- they are less costly than aboveground treatment systems;
- require no removal, treatment, storage, or discharge consideration for groundwater.

In New Mexico, sparge-and-vent systems have successfully remediated not just adsorbed soil phase, dissolved phase, and vapor phase hydrocarbons, but also free product.

The free-for-all

Brad Billings led off with the idea that sparge-and-vent systems exhibit behavior so complex as to be considered random; i.e., behavior that is unstable and aperiodic. In short, chaos. He went on to say that sites are so individual-

istic and dynamic that they don't remediate as expected, requiring preparation for flexibility and worst-case scenarios on the part of the practitioner.

As a project manager of a number of sites with sparging systems in the ground, I had attended the panel hoping to increase my understanding of how I can expect these systems to perform. I soon began to think that maybe the opposite might happen.

Each panel member in turn stressed basic design elements such as well spacing and vertical placement of injection points, and proper system operation such as optimization of air flow rates. Again, flexibility was stressed -- flexibility during installation to allow modification based on what is found in the sub-surface, including lithology and distribution of contaminants, and flexibility to allow operational modifications as needed to accommodate changes in bio-activity that might occur during the life of the project.

Panelists agreed that sparging could quickly reduce groundwater concentrations. However, if the system were shut down, groundwater contaminants concentrations would “rebound” as water re-encountered contaminated soil. In other words, soil contamination is the final and most difficult phase to clean up. Additionally, an effect to be avoided is “swiss cheesing” a site, or cleaning up soils around wells, leaving behind untouched, contaminated soil in between these clean zones where it can then recontaminate cleaned-up groundwater.

Designation of the panel as a free-for-all suggested we wouldn't be hearing a lot of consensus, but nevertheless I got a somewhat nervous feeling listening to comments on pilot testing. The discussion went like this: Ms. Dahl stated that an accurate pilot study was a must. Mr. Brown said pilot tests were never accurate, tending to overestimate the area the system would impact. Mr. Billings said that pilot studies aren't even necessary if one has experience in various soil terrains; e.g., a clay will always behave like a clay.

Dr. Thomson then called on Mr. Rutherford, a student of Dr. Paul Johnson, sparging-research guru, for clarification and for the researcher's perspective.

A sugar cube in the water

Mr. Rutherford said he agreed with everyone. He said that to understand how sparging worked, one must ask, what is the process acting on the contaminants? He likened this process -- mass transfer, including diffusion and advection -- to a sugar cube in water. Diffusion is what happens to a sugar cube sitting in a glass of water; advection is when

Getting to Know SIR

by Teresa McMillan, Water Resource Specialist, Roswell

What is SIR? How does SIR work? How to find a good SIR vendor? These are the questions leak detection expert Marcel Moreau answered for tank owners and installers at the UST Conference in November.

What is SIR? SIR stands for Statistical Inventory Reconciliation. Moreau explained that old-fashioned inventory control data is analyzed statistically to determine if there is a release from tanks and product lines. For SIR to meet EPA protocol it must detect a leak of .2 gal/hr (150 gal/month) with a probability of detecting a leak 95 percent of the time and a probability of false alarm of five percent. To simplify, the SIR method must detect a release of 150 gal/month 95 times out of 100. SIR meets the monthly leak detection requirements for tanks and piping.

How does SIR work? Moreau stressed that for SIR to work effectively tank owners must have good data. Moreau had some fun testing the audience's vision with an optometrist-type eye chart to prove his point, that the better your vision the more clearly you can see. The same holds true for SIR -- the better the inventory control data the smaller the leak rate SIR can detect.

From the inventory control data, a leak threshold (action level leak rate which defines the limits between pass and fail) and a minimum detectable leak (smallest leak rate the SIR vendor can determine from the data) are calculated. These rates are used to determine if the UST system has passed, or failed, or that the data is inconclusive. Moreau emphasized that each SIR vendor uses different vocabulary to describe pass, fail, and inconclusive which can make it difficult for tank owners to determine if their system is tight.

Moreau also explained that SIR is not approved in New Mexico to perform line tightness tests, nor can it detect a leak on satellite dispenser piping.

How to find a good SIR vendor? Moreau is of the view that the EPA protocol for SIR vendors does not set high enough standards; therefore, owners must be careful in selecting a SIR vendor. Moreau suggested that tank owners ask prospective SIR vendors the following questions:

- What procedures and equipment do I use to gather data?
- What is the throughput limit without temperature data?
- What guarantees are there that results are accurate?
- What are the quality control procedures?
- Did the vendor develop the SIR program?
- What kind of insurance does the vendor carry?
- How long has the vendor been in business?

Photo by Bill Williams

MARCEL MOREAU HELPS TANK OWNERS MAKE DECISIONS ABOUT CHOOSING A LEAK DETECTION METHOD.

In closing, Moreau said he hoped the discussion would help tank owners make an informed decision concerning SIR as a release detection method. For more information on SIR, the EPA has a publication, "Introduction to Statistical Inventory Reconciliation for Underground Storage Tanks." If you would like a copy, please contact the USTB inspector in your area. You can also look at page 4 of the Fall 1995 issue of *Tank Notes* for the limits on the use of SIR for tightness tests.

Report on Workplan Approvals and Encumbrances

by Anna Richards, UST Bureau Chief

Workplans may be executed as soon as they are approved, but some tank owners are choosing to wait until the money is encumbered. An encumbrance is like a check written but not yet signed. Due to the declining fund balance, the Department will encumber workplans in chronological order. Unexecuted workplans go back over a year. Because the same nine people who process claims also work with project managers on implementing the project, it is a slow process. All claims are encumbered within a week after they are received, if the workplan was not encumbered earlier. Letters notifying tank owners when workplans have been encumbered will go out, as promised.

Cottonwood Chevron: Built to be Ever Ready

by John Cochran, Water Resource Specialist, District I

Lora Davis and Jim Phelps of Ever-Ready Oil Co. helped design and build a new type of underground storage tank facility -- one that exceeds performance standards for the design, construction, and installation of new UST systems. In addition, a vapor monitoring system was specifically designed and installed to detect releases and help remediate contaminated soil near the tank pit.

Construction began in March 1995 along Coors Blvd in Albuquerque. Double-walled fiberglass-coated steel tanks (STIP3) were installed along with spill and overflow prevention devices. Containment sumps were placed around the submersible pumps and beneath the dispensers. Monitors were placed inside the submersible pump sumps and in the interstice of the tanks that activate an alarm if product is detected. Most importantly, employees were instructed on the operation of the leak detection system and what should be done if an alarm is triggered.

This facility was one of five sites nationwide selected as a test site for the installation of Smithflex piping. Smithflex is flexible steel piping surrounded by a secondary containment barrier that is easy to install and comparable in cost to fiberglass piping.

A vapor monitoring system was installed as an additional leak detection system. PVC lines were placed beneath and between the tanks at the time of tank installation. The slotted PVC lines beneath the tanks should quickly detect a release. In the event of a release the system can also act as a soil vapor extraction system.

Carbon canisters or a thermal oxidation unit can be placed on the roof of the facility to remediate any vapors produced by contaminated soil. Installation cost \$750-\$800, compared with \$10,000 if the system had been added after initial construction. The system is monitored monthly for proper operation.

Kirtland Air Force Base begins work to upgrade UST facilities

by John French, Environmental Supervisor, District I

Kirtland AFB notified the UST Bureau that tank removal and environmental compliance work at its UST-related sites had been funded. Work began in November 1995. The military construction projects (MIL-CON 95) were funded for \$3.2 million through the Army Corps of Engineers to enable KAFB to bring its UST sites into compliance with New Mexico UST Regulations. Preparations for these projects began in July 1993 when the State and KAFB reviewed base UST sites for compliance and environmental safety. The Base Commander set up an environmental management team that is today called the 377th ABW/EMC.

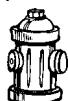
Forty-five regulated tanks at 27 sites will be removed and the sites assessed. In addition, 41 heating oil tanks at 38 sites will be removed. The UST Bureau and the Ground Water Quality Bureau (formerly the Ground Water Protection and Remediation Bureau) have an informal agreement whereby the UST Bureau will be the lead agency responsible for regulatory oversight of the removal and assessment of heating oil tank sites. If site remediation is required at the latter sites, regulatory responsibility will revert to the GWQB. The contractor for this project is Brown & Root Environmental. Subcontracts have already been made with New Mexico companies to remove some

tanks, upgrade other tank systems, and install some new systems.

A second MIL-CON 95 has been funded through the Corps of Engineers to remove six tanks or oil/water separators at six sites at the New Mexico Air National Guard facility at KAFB. This project, to be handled by Puma Construction, is also underway.

LEAK O' THE WEEK

Date	Report Person	Phone
Jan 8-12	Steve Jetter	841-9461
Jan 15-19	Jane Cramer	841-9477
Jan 22-26	Kalvin Martin	841-9186
Jan 29-Feb 2	David Nye	841-9478
Feb 5-9	Dana Bahar	827-2926
Feb 12-16	chris holmes	827-2916
Feb 19-23	Steve Jetter	841-9461
Feb 26-Mar 1	Jane Cramer	841-9477
Mar 4-8	Kalvin Martin	841-9478
Mar 11-15	David Nye	841-9478
Mar 19-22	Dana Bahar	827-2926
Mar 25-29	chris holmes	827-2916
Apr 1-5	Steve Jetter	841-9461
Apr 8-12	Jane Cramer	841-9477
Apr 15-19	Kalvin Martin	841-9478



Quality Control Commission. If the Secretary recommends approval, then the Commission will hold a public hearing on the proposed standards. Public participation is an important part of the process. If disapproval is recommended, then the petitioner has 15 days to ask the WQCC for a hearing. When a hearing is held, the Commission will make a decision based on the record of the public hearing.

How long might this process take? The Secretary has 60 days to review the petition and make a recommendation to the Commission. The public hearing itself must be held within 90 days of the date the Commission sends notice of granting the hearing to the petitioner. When a public hearing is granted, notice must be published at least 30 days prior to hearing.

Is an alternative to the abatement standards the way to go? Talk to your project manager and consultant!

CONFERENCE, CONTINUED FROM PAGE 1

according to Brice. They also have bought some contamination with their New Mexico properties. Brice says Diamond Shamrock has some concerns, one of which is uncertainty about the Fund. "We want to continue to do the work on the basis of reimbursement."

But according to Stuart Faith, "I am told the CAF balance has dipped to the point where the regulated community and their consultants can no longer be assured of reimbursement of future work." Faith is convinced that consultants and contractors will not be able to proceed without some kind of contractual guarantee of payment for services. This presents an impasse in which the UST Bureau, in order to protect the soil and groundwater environment, will be faced with trying to enforce the UST regulations against financially-strapped owners and operators. Faith said the loss of funds to continue the program would ultimately mean that New Mexico's soil, groundwater, domestic water supplies and surface water supplies will again be in great peril.

It was clear at the conclusion of the morning's plenary session that a healthy fund is the hub of a successful underground storage tank program, without which the reimbursement program cannot function smoothly, nor can the steady progress toward universal upgrading of facilities be assumed. So, why not restore the fund; what's the problem? Government, business, and environmentalists agree that the fund is not only a good thing and affordable, but critical. The problem, according to family business owner and UST Committee member Charley Brewer, is politics. "The legislature thinks it's a giveaway program," Brewer said. "They've taken money out of the fund and then cut it in half last year in a battle with the governor." Brewer said Sierra Club members and marketers were lined up to testify that the Fund was a good thing and to leave it alone, but nobody paid attention. Now it's a year later. The fund is underfunded and the UST Bureau is understaffed. The consulting community is skittish and reluctant to start big jobs they might not get paid for. Owners and operators wonder how they can afford to upgrade. "Call your senators and representatives and tell them how important this fund is," Brewer told the audience. "It's not only cleaning up sites that are leaking today; it's cleaning up sites that have been contaminated over the last 50 years."

Beyond the Fund: Helping Mom & Pop survive the new requirements

Charlie Hooker, owner of three convenience store gas stations, spoke at the plenary session on behalf of small dealers and owners. "How many in the consultant business out there?" he asked the audience. Lots of hands go up. "How many regulators?" More hands go up. "How many single location service station owners?" One hand goes up. His name is Bill. "Bill, these guys are all here to help you." We all laughed, but Hooker had made his point. Hooker's main worry is that the government, while trying to correct one problem, has created another: the rapid demise of the little guy. Hooker says he would never put down what's being done in America today to clean up the environment, that it has to be done, but that in talking to other small operators, he is deeply concerned. "What's this guy got to look forward to that's out there in Pie Town or Magdalena on Highway 64? Not very much. The small guy built this industry in New Mexico. These guys took the risks of business while fixing flats and wiping your windshields and, folks, most likely these guys are going to be gone." Hooker says the upgrading they must complete by the end of 1998 is going to be tough if it costs an average of \$75,000 dollars to upgrade a small site, and that's without the cost of cleaning up hydrocarbon contamination. If the bank agrees to loan them the money they then have to decide if they can break even pumping just 30,000 gallons a month. "I submit to you today that unless we as a group help these people in financing their sites, there are two things that are going to happen. One, you may be on highway 64 in the middle of the night looking for gasoline, looking for a battery, looking for somebody to fix a flat and you won't find them, and, two, the ranchers out on the plains are not going to be able to buy gasoline." Hooker called on the consulting industry and the regulated industry to use their influence to save the small operator. "I solicit your help, and I solicit you to talk to your legislator, both nationally and statewide."

New state regs consider risk in setting GW cleanup standards

by Rita Alexander, Water Resource Specialist, District I

UST Bureau Chief Anna Richards led an informative panel discussion on the new abatement regulations at the conference. These regulations are contained in the newly revised New Mexico Water Quality Control Commission Regulations. Ground Water Quality Bureau Chief Marcy Leavitt and Program Manager Dennis McQuillan reported. The purpose of the NMWQCCR is to protect groundwater with 10,000 parts per million total dissolved solids or less. The standards set forth in the regulations are to protect the present and future use of groundwater in New Mexico. The regulations define groundwater as water capable of entering a well in sufficient amounts to be used as a water supply, which in turn depends on the intended use for the water.

The general view within the Department is that the Commission's revised regulations will be good both for the environment and industry primarily because one of the additions to the NMWQCCR is the allowance of alternative cleanup standards. Any responsible party will be able to petition for alternative cleanup standards. The procedure for attaining these alternative standards is clearly spelled out in the revised regulations.

Panelist and UST District I Program Manager Gregg Crandall told the audience how the revised NMWQCCR will affect leaking underground storage tank sites in New Mexico. Section 1219 of the UST Regulations states that groundwater cleanup must meet NMWQCC standards, so if the Commission allows alternative cleanup standards,

so do the UST Regs. The process will involve risk based corrective action (RBCA) evaluation, close cooperation between the GWQB and the USTB and ultimately review by the Secretary of the Environment Department and public hearings. The final decision on whether to allow alternative standards at the site will then be made by the Commission.

The alternative cleanup provision only applies to NMWQCC standards and does not affect the USTR soil standards. The USTR would have to be revised before the soil standards could be varied. There is also a USTR groundwater standard for methyl tertiary butyl ether (MTBE) and other ether-based gasoline additives (.1 mg/L). This standard is not affected by the NMWQCC alternative cleanup standard provision and changes to the standard would require a revision of the UST regs.

The revised NMWQCCR went into effect December 1, 1995. These new regs allow some leniency for sites where there is no immediate threat to public health and the environment and will let groundwater regulatory entities, along with the private sector, concentrate their resources on sites which warrant a more aggressive remedial approach. For more information and a copy of the regulations, please contact:

New Mexico Environment Department
Ground Water Quality Bureau
1190 St. Francis Drive, P.O. 26110, Santa Fe, NM 87502

The new abatement regulations

by Roseann Thompson, Water Resource Specialist, Las Cruces

If you've been reading *Tank Notes* on a regular basis, you know quite a bit about Risk Based Corrective Action (RBCA). Now, in addition to the 50-foot rule and sites where the total dissolved solids exceed 10,000 mg/l, the alternative abatement standards may give you the option to not continue with remediation efforts at your site. If a groundwater remediation system has been in operation at the site for several years and is not effectively removing some of the remaining contaminants, or groundwater contamination is "not that bad" at the site, you may be able to get some relief from technical infeasibility regulations.

If contamination at your site is less than 200 percent of the abatement standard for a contaminant and eight consecutive quarters of sampling shows that projected future reductions will be less than 20 percent of the contaminant concentration, you may propose technical infeasibility. At any time during or after filing a Stage 2 abatement plan, you may also file a petition for an alterna-

tive abatement standard with the Secretary of the Environment Department that must:

- 1) demonstrate that compliance is not feasible using the best affordable technology, or that there is no reasonable relationships between economic and social cost and benefits;
- 2) propose an alternate standard that is achievable and cost-benefit justifiable;
- 3) demonstrate that the alternative will not create a present or future hazard to public health or undue damage to property;
- 4) define the 3-dimensional body of water pollution; and
- 5) specify the extent to which existing standards are being violated.

The petition may also include a contaminant fate and transport model and a risk assessment.

Once the petition is received, the Secretary reviews the petition and makes recommendations to the Water

New Contractor Fee Schedule

by Gregg Crandall, Program Manager, District 1

A new Contractor Fee Schedule contains several important changes with regard to certified scientists, education and experience requirements, duties, and maximum hourly rates. The new schedule replaces all earlier schedules, including the schedule circulated at the UST Conference dated November 2, 1995.

The new contractor fee schedule was developed to allow non-certified persons to implement on-site corrective action activities, to fine-tune the duties performed at each level, and to develop a step progression from Scientist-in-Training to Certified Scientist for individuals as they gain experience in the corrective action field. The UST consulting community had expressed concern that the policy requiring Staff Scientists to be certified was too restrictive. The new policy was adopted following a meeting among Bureau staff and representatives of the consulting world.

The biggest change in the fee schedule deals with which professional service categories must be certified scientists. Staff Scientists are no longer required to be certified. This change was made in order to allow the actual field work to be performed by non-certified individuals under the supervision of the site Project Scientist or Senior Scientist, who may or may not be present at the site during the implementation of corrective action activities. However, persons at the Project Scientist and Senior Scientist levels must be Certified Scientists.

Another major change was made to the education and experience requirements for the non-certified categories. Staff Scientists must now have either a minimum of an appropriate BS degree and one year of corrective action experience, or three years experience, or two years experience plus a passing score on the Certified Scientist Examination.

Junior Scientists are now required to have a minimum of either an appropriate associates degree, or one year experience, or a passing score on the Certified Scientists Examination. In addition, Senior Engineer requires a P.E., but not necessarily from New Mexico.

Changes to the fee structure were also made. The maximum hourly rate for Senior Engineers was reduced to \$95 (from \$100), and Staff Scientists now may charge only \$60 per hour (down from \$65). The Junior Engineer category was changed to Project Engineer, and the maximum hourly rate was increased from \$65 to \$75 to reflect the customary and reasonable industry charge for the services performed at this level.

Several task descriptions were modified. "Modeling" was removed from the Project Scientist and Staff Scientist categories. Instead, charges for specialized services such as groundwater and contaminant modeling will be approved at their customary and reasonable industry levels should the Department determine such services are required. "Aquifer characterization" was moved from the Senior Scientist level to that of Project Scientist. Senior Scientists, like Senior Engineers, may now consult during reclamation system installation and start-up to optimize system performance. "Reclamation Proposal Preparation" was moved from Senior Scientist to Project Scientist.

Junior Scientist duties were updated and expanded. Persons in this category will perform installation, maintenance, and repair of machinery and equipment, conduct sampling and monitoring activities and assist in the preparation of technical reports and site investigation activities.

For a copy, please contact the District I UST office, or the UST Bureau in Santa Fe.

Exactly Who Needs to be a Certified Scientist????????

by Gregg Crandall

Following a meeting among Bureau staff and members of the UST consulting community, it was agreed that only persons performing Senior Scientist and Project Scientist tasks will be required to become certified scientists. Because Staff Scientist duties focus on site investigation activities, persons performing work at this level need not become certified.

The goal of the Certified Scientist program is to have qualified individuals exercise direct responsible supervisory control over investigation and remediation activities at LUST sites. To accomplish this end, Department policy requires persons performing at the Senior Scientist and Project Scientist levels to be certified scientists. While it is crucial to have a certified scientist develop, oversee, and supervise a project, a certified scientist is not required to perform the actual on-site corrective action activities.

Because certified scientists exercise direct responsible supervisory control, it is their responsibility to ensure that corrective action activities are performed properly and conform to standard industry practices. If any component of a workplan is improperly or poorly executed, an individual's certification may be at risk even if the work was performed by another person under their direction. A certified scientist will need to sign all workplans, reports, and reclamation proposals for a site.

The Certified Scientist program puts the onus on the certified individuals and the firm for whom they work to ensure that properly trained and experienced technical staff are used to perform the necessary field work. While the certified scientist is not required to perform all corrective action activities directly, the ultimate responsibility for the work at the site is on that person.

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Storage Tank Bureau, New Mexico Environment
Department*

TANK NOTES

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The information in this newsletter is for the UST owner/operator population and is provided as a general information guide. It is not intended to replace, interpret or modify manufacturers' protocols, or the rules, regulations or requirements of local, state or federal government, nor is it intended as legal advice.

Thank you for your interest in *Tank Notes*. We welcome your comments and suggestions. Send address changes and correspondence to: New Mexico Environment Department, Underground Storage Tank Bureau, Harold Runnels Building, 1190 St. Francis Drive, P.O. Box 26110, Santa Fe, New Mexico 87502.

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TANK NOTES

STATE OF
NEW MEXICO
ENVIRONMENT
DEPARTMENT



... A Newsletter from
the Underground
Storage Tank Bureau

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Business tells government: NM needs the Fund

by Kathy Grassel, editor, Institute of Public Law

THere's the dilemma. The need for cleanup money increases as the income to the Corrective Action Fund decreases. Caseloads for the already barebones UST Bureau staff continue to increase as more and more releases are reported each week. About half the tank removals that the Prevention/Inspection staff attends result in a confirmed release which then needs to be followed up with an investigation and possibly cleanup. Now as owner/operators begin to upgrade their facilities to meet the 1998 deadline, more contamination is uncovered. Meanwhile, some 1,000 sites are already in some stage of investigation or remediation. This according to Bureau Chief Anna Richards' status report to the audience at the 1995 UST Conference and Trade Show held in Albuquerque in November.

The theme of this year's conference was UST challenges for business and government. The message from business that rang loud and clear during this conference was that without a healthy fund, owners and operators would not be able to afford both to clean up and upgrade. According to plenary panel speaker and consultant Stuart Faith, this would put the clock back to the days before the reimbursement program began when contaminated sites were litigated, not remediated. Faith, a registered professional engineer and owner of Faith Engineering, has spent 20 years in the geochemical consulting business in New Mexico. He's been witness to numerous environmental regulatory programs from their inception to their administration and enforcement. Faith spoke about the need for a healthy fund, telling about the pre-Fund dark ages — those adversarial days of standoffs, litigation, and frustration in which he as a consultant, "spent more time negotiating the language of the agreement with my clients and their attorneys than I did doing field investigations and remedial actions." Faith said that since passage of the Ground Water Protection Act, the Corrective Action Fund, and the implementation of the reimbursement program two years ago, he has been "both witness and party to the most

MARKETER CHARLEY BREWER URGES ALL TANK OWNERS
TO CONTACT THEIR LEGISLATORS TO RESTORE THE FUND.

significant, well-focused, least anti-industry, most productive environmental cleanup program that this state has ever embarked upon."

Plenary panelist Bryan Ashburn, general manager of Allsup's Petroleum, reported Allsup's upgrading is proceeding apace. He says 50 percent of Allsup's 100 facilities in New Mexico are upgraded. However, he said, "we have to have a healthy state fund to be able to continue at that pace. We can't afford to pay for major cleanups AND major upgrades. I don't think anyone has that much money." Ashburn concluded the most important thing to his company is a healthy state fund, and Allsup's would support whatever initiative went toward that goal.

Panelist Mack Brice, project manager for Diamond Shamrock Retail Environmental Services, commented that Diamond Shamrock, a Texas-based major petroleum company, has 50 facilities in New Mexico. "We look at New Mexico as an excellent environment for growth," he told the audience. "We are building more stores today and looking for acquisitions." The company sells six million gallons of fuel a month in the state of New Mexico,

Photo by Bill Williams

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